



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,674	02/11/2004	Rudolf Faust	ULI-002	3484
959	7590	05/30/2006		
LAHIVE & COCKFIELD 28 STATE STREET BOSTON, MA 02109			EXAMINER TESKIN, FRED M	
			ART UNIT	PAPER NUMBER
			1713	
DATE MAILED: 05/30/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,674

Applicant(s)

FAUST ET AL.

Examiner

Fred M. Teskin

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 32-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 19-31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Art Unit: 1713

Applicants' election of the invention of Group I, claims 1-31, and of the block copolymer species (III) in the reply filed on April 3, 2006, is acknowledged. Because applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 32-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 3, 2006.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (Applicants' Ref. B12).

The claimed invention is a copolymer comprising (a) a plurality of constitutional units that correspond to one or more olefin monomer species and (b) a plurality of constitutional units that correspond to one or more protected or unprotected hydroxystyrene monomer species. Pursuant to the applicants' election, the block copolymer species of the claimed invention is presently under consideration.

Chen et al report the synthesis of block copolymers by atom transfer radical polymerization induced with 1-chloro-1-phenylethyl-telechelic polyisobutylene. Block copolymer constituted of a polyisobutylene (PIB) central block and poly(p-acetoxystyrene) (PpAcOSt) outer blocks is specifically described, see page 586, Scheme 1 and page 588, Fig. 4, which illustrates an SEC trace of PpAcOSt-PIB-PpAcOSt block copolymer. Para-acetoxystyrene is an acetyl-protected hydroxystyrene as per claims 7, 15 and 18, while isobutylene is an olefin monomer species within claims 1-4, 9 –12, 16 and 17. As such, the reference is seen to describe a block copolymer comprising an “olefin block” and a “styrenic block” as defined in claim 10 and which is embraced by claims 1-9 and 11-18.

Claims 1-3, 5-7, 10-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by CA 2040457 to Long et al.

Long et al describe di- and tri-block copolymers consisting of a poly(1,3-diene) block and a block of a poly(vinylphenol), a silyl-protected poly(vinylphenol) or a poly(metal phenolate); see page 2, lines 25 *et seq.* Specific disclosure is provided to di-block copolymers constituted of a polyisoprene block and a poly(vinylphenol) or poly(4-tert-butyldimethylsiloxystyrene) block, see page 10, lines 5-10 and Examples 1-3 and 5. Deprotection of the poly(isoprene-b-t-butyldimethylsiloxystyrene) block copolymer is described in Example 6 (pages 13-14). 4-tert-butyldimethylsiloxystyrene is a protected hydroxystyrene as per claims 7, 15 and 18, while isoprene is an olefin monomer species within claims 1-3, 11 and 12. As such, the reference is seen to describe a block

Art Unit: 1713

copolymer comprising an "olefin block" and a "styrenic block" as defined in claim 10 and which is embraced by claims 1-3, 5-7, 11-15 and 17.

Claims 1, 2, 5-7, 10, 11, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Jankova et al.

Jankova et al report the synthesis by atom transfer radical polymerization of poly(ethylene-co-butylene)-block-poly(4-acetoxystyrene) and its hydrolysis product poly(ethylene-co-butylene)-block-poly(hydroxystyrene), see page 220, first two paragraphs of left-hand column and Scheme 1. 4-acetoxystyrene is an acetyl-protected hydroxystyrene as per claims 7 and 15, while the ethylene/butylene units, being derived from polybutadiene (per page 219, Introduction), are considered to correspond to a multiolefin monomer within claims 1, 2, 11 and 17. As such, the reference is seen to describe a block copolymer comprising an "olefin block" and a "styrenic block" as defined in claim 10 and which is embraced by claims 1, 2, 5-7, 11, 13-15 and 17.

Claims 19-31 are objected to as being dependent on a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim. A block copolymer of a formula as defined in claim 19 (and claims dependent thereon) is not taught nor fairly suggested in any prior art documents located or identified by the examiner as of the date of this Office action.


Art Unit: 1713

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner F. M. Teskin whose telephone number is (571) 272-1116. The examiner can normally be reached on Monday through Thursday from 7:00 AM - 4:30 PM, and can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The appropriate fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMTeskin/05-24-06


FRED TESKIN
PRIMARY EXAMINER
1713